

CLAIMS :

1. An encoding method applied to an input video sequence corresponding to successive scenes subdivided into successive video object planes (VOPs) and generating, for coding all the video objects of said scenes, a coded bitstream the content of which is described in terms of separate channels and constituted of encoded video data in which each data item is described by means of a bitstream syntax allowing to recognize and decode all the elements of said content, said syntax comprising an additional syntactic information provided for describing independently the type of temporal prediction of the various channels, said predictions being chosen within a list comprising the following situations :

5 - the temporal prediction is formed by directly applying the motion field sent by the encoder on one or more reference pictures ;

- the temporal prediction is a copy of a reference image ;

10 - the temporal prediction is formed by the temporal interpolation of the motion field ;

15 - the temporal prediction is formed by the temporal interpolation of the current motion field and further refined by the motion field sent by the encoder ; said method being further characterized in that said additional syntactic information is a syntactic element placed at the slice level in said generated coded bitstream and its meaning is specific for each present channel.

20 2. An encoding method applied to an input video sequence corresponding to successive scenes subdivided into successive video object planes (VOPs) and generating, for coding all the video objects of said scenes, a coded bitstream the content of which is described in terms of separate channels and constituted of encoded video data in which each data item is described by means of a bitstream syntax allowing to recognize and decode all the elements of said content, said syntax comprising an additional syntactic information provided for describing independently the type of temporal prediction of the various channels, said predictions being chosen within a list comprising the following situations :

25 30 - the temporal prediction is formed by directly applying the motion field sent by the encoder on one or more reference pictures ;

- the temporal prediction is a copy of a reference image ;

- the temporal prediction is formed by the temporal interpolation of the motion field ;

- the temporal prediction is formed by the temporal interpolation of the current motion field and further refined by the motion field sent by the encoder ; said method being further characterized in that said additional syntactic information is a syntactic element placed at macroblock level in said generated coded bitstream and its meaning is specific for each present channel.

5 3. An encoding method according to anyone of claims 1 and 2, characterized in that said meaning is shared by all existing channels.

10 4. An encoding device processing an input video sequence that corresponds to successive scenes subdivided into successive video object planes (VOPs) and generating, for coding all the video objects of said scenes, a coded bitstream the content of which is described in terms of separate channels and constituted of encoded video data in which each data item is described by means of a bitstream syntax allowing to recognize and decode all the elements of said content, said encoding device being provided for carrying out the encoding method according to anyone of claims 1 and 2.

15 5. A transmittable video signal consisting of a coded bitstream generated by an encoding device processing an input video sequence that corresponds to successive scenes subdivided into successive video object planes (VOPs) and generating, for coding all the video objects of said scenes, a coded bitstream the content of which is described in terms of separate channels and constituted of encoded video data in which each data item is described by means of a bitstream syntax allowing to recognize and decode all the elements of said content, said transmittable video signal including an additional syntactic information provided for describing independently the type of temporal prediction of the various channels, said predictions being chosen within a list comprising the following situations :

20 25 - the temporal prediction is formed by directly applying the motion field sent by the encoder on one or more reference pictures ;

- the temporal prediction is a copy of a reference image ;

- the temporal prediction is formed by the temporal interpolation of the motion field ;

30 - the temporal prediction is formed by the temporal interpolation of the current motion field and further refined by the motion field sent by the encoder ; and said additional syntactic information being a syntactic element placed at the slice level or at the macroblock level in said generated coded bitstream and its meaning is specific for each present channel.

6. A method for decoding a transmittable video signal consisting of a coded bitstream generated by an encoding device processing an input video sequence that corresponds to successive scenes subdivided into successive video object planes (VOPs) and generating, for coding all the video objects of said scenes, a coded bitstream the content of which is described in terms of separate channels and constituted of encoded video data in which each data item is described by means of a bitstream syntax allowing to recognize and decode all the elements of said content, said transmittable video signal including an additional syntactic information provided for describing independently the type of temporal prediction of the various channels, said predictions being chosen within a list comprising the following situations :

5 10 - the temporal prediction is formed by directly applying the motion field sent by the encoder on one or more reference pictures ;

- the temporal prediction is a copy of a reference image ;
- the temporal prediction is formed by the temporal interpolation of the motion field ;

15 - the temporal prediction is formed by the temporal interpolation of the current motion field and further refined by the motion field sent by the encoder ; and said additional syntactic information being a syntactic element placed at the slice level or at the macroblock level in said generated coded bitstream and its meaning is specific for each present channel.

20 7. A decoding device for carrying out a decoding method according to claim 6.